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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,645	03/07/2001	Troy Michael Runge	16,670	5221
23556	7590	06/17/2004		
KIMBERLY-CLARK WORLDWIDE, INC. 401 NORTH LAKE STREET NEENAH, WI 54956			EXAMINER HALPERN, MARK	
			ART UNIT 1731	PAPER NUMBER

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/800,645

Applicant(s)

RUNGE ET AL.

Examiner

Mark Halpern

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-19,23-33 and 35-79 is/are pending in the application.
- 4a) Of the above claim(s) 35-76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-19,22-33,77-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/5/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

- 1) Acknowledgement is made of Amendment received 4/13/2004. Applicants amend claim 32, and offer new claims 77-79, for consideration.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 2) Claims 1-2, 4-5, 8-15, 18-19, 22-23, 25, 27-33, 77-79, are rejected under 35 U.S.C. 102(e) as being anticipated by Gross (6,344,109).

Claims 1-2, 4-5, 22-23, 25, 27: Gross discloses comminution pulp sheet formed by conventional wet laying techniques and then dried and rolled (col. 1, lines 50-61, and col. 4, lines 20-25). A roll of comminution pulp sheets is then further processed. Gross discloses that the sheet is subjected to chemical treatment. As disclosed in Example 4, the pulp sheet is saturated with a 5% solution of a chemical softening agent. Upon drying of the sheet the amount of chemical agent retained in the sheet as measured by weight gain is 4.2-4.5% (col. 11, lines 15-35, table). This calculates to an up to 90% retention of the chemical agent within the pulp sheet. Thus when the sheet is

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reslurried, the fibers in the slurry will have up to 90% of the chemical additive that was present in the dry sheet.

Claims 8-13, 33: the chemical additives are debonding, softening, absorbency and strength agents (col. 3, line 27 to col. 4, line 17).

Claim 14: the sheet of Gross is rehydrated (col. 13, line 40 to col. 14, line 68).

Claims 15, 29-32, 77-79: the amount of chemical additive in Example 4, of 4.2-4.5 weight percent gain reads on the claimed amount of chemical additive about 0.1-5.0 kilograms per metric ton, which is 0.01-0.50 weight percent.

Claim 18: proper residence time is allotted in test sampling (col. 5, lines 5-10).

Claims 19, 28: paper products and the products enhanced quality are disclosed (col. 1, lines 17-54).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) Claims 16-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross. Gross discloses that the comminution pulp sheet formed by conventional wet laying techniques is dried (col. 1, lines 50-61, and col. 4, lines 20-25). Gross also discloses that cellulose pulp has a natural residual moisture content proportional to the temperature and relative humidity under which it is stored and to the severity of drying

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conditions to which the fibers have been most recently subjected (col. 8, lines 48-53).

Thus, it would have been obvious, to one skilled in the art at the time the invention was made, that the consistency of the sheet of Gross be within the claimed range of 65-100 percent.

4) Claims 3, 6, 24, 26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross in view of Champaigne (3,556,931). Gross is applied as above for claims 1, 22, Gross is silent on a z-direction gradient of the chemical additive. Champaigne discloses a process of making a cellulosic fluffed sheet, wherein a quaternary ammonium salt is added to the web in such a way as to penetrate only the surface zone of the web and thus create a gradient of chemical additive penetration into the web (Champaigne, col. 1, lines 13-27, and col. 1, line 64 to col. 2, line 19). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Gross and Champaigne, because such a combination would create a product of Gross having a dense absorbent inner zone and a softer more fluid outer zone, as disclosed by Champaigne (col. 1, lines 25-27).

#### ***Response to Amendment***

5) Applicant's arguments filed 4/13/2004, have been fully considered but they are not persuasive.

In regard to independent claims 1, 22, Applicants allege that the cited prior art, Gross, does not disclose that the treated pulp fibers are redispersed in water.

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Since the web fibers have 90% of the chemical additive when the web is dried, it is inherent that the web fibers will have the same amount of the chemical additive when the fibers are re-dispersed in water.


Note: re-sheeting and the retention of chemical additives (added to the dried web prior to re-slurring) in the in re-sheeted web fibers, is not claimed.

### ***Conclusion***

6) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Halpern  
Patent Examiner  
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